

Application Serial No. 10/576,006  
Reply to final office action of January 26, 2009

APR 13 2009 PATENT  
Docket: CU-4773

### Amendments to the Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

#### Listing of claims:

1. **(currently amended)** An apparatus for repeating a signal from a satellite to a mobile station in a shadow area, the apparatus comprising:

a receiving unit for receiving the signal and amplifying the received signal from the satellite;

a radiating unit for radiating the amplified signal to the shadow area; and

a feeding unit for feeding the amplified signal to the radiating means,

~~wherein the receiving unit transmits the amplified received signal to the radiating unit without being blocked~~

~~wherein the shadow area is blocked from receiving the signal from the receiving unit.~~

wherein the radiating unit comprises:

a symmetrical dual transmitting antenna provided with a first microstrip patch array antenna and a second microstrip patch array antenna; and

a divider for dividing the amplified signal to a first portion and a second portion, and passing the first portion to the first microstrip patch array antenna and the second portion to the second microstrip patch array antenna.

2. **(previously presented)** The apparatus of claim 1, wherein the receiving unit

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comprises:

a microstrip patch array antenna for receiving the signal from the satellite; and  
an amplifier for amplifying the received signal from the microstrip patch array antenna.

3. (previously presented) The apparatus of claim 2, wherein the radiating means unit is installed in the shadow area.
4. (previously presented) The apparatus of claim 2, wherein the microstrip patch array antenna and the amplifier are implemented as one piece and further comprises a probe for transiting the signal received from the microstrip patch array antenna to the amplifier.
5. (cancelled)
6. (original) The apparatus of claim 5, wherein the shadow area is an overpass.
7. (previously presented) The apparatus of claim 1, wherein the receiving unit is located at a position where a line of sight to the satellite is secured.
8. (cancelled)
9. (currently amended) The apparatus of claim ~~[[8]]~~ 1, wherein the shadow area is

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an underpass.

**10. (new) The apparatus of claim 8, wherein the first microstrip patch array antenna and the second microstrip patch array antenna are coupled by a hinge to tilt a radiation angle of the symmetrical dual transmitting antenna.**